# *Prospective Environmental Restoration Workshop*

DuPont and Chevron are co-sponsoring a Prospective Environmental Restoration (also known as Restoration Banking, or Restoration Up Front (RUF)) Workshop to build upon the national dialogue on this concept that has been ongoing for several years between the public and private sectors. The workshop will focus on an incentive-based program to increase restoration and conservation planning and implementation in the United States.

We expect this workshop to be a forum that will bring together natural resource management professionals from the public and private sector who have a vested interest in increasing incentive-based restoration and conservation activities nationally. The workshop is designed to foster open communication, develop and assess a framework for developing / trading restoration credits, strengthen the enthusiasm for proactive, incentive-based restoration and conservation projects, and build a communication and practice exchange network.

## Logistical Information

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| Date: | September 6-7, 2006 |
| Location: | Chevron Park<br>Building Bishop Ranch 1, Room 1220<br>6001 Bollinger Canyon Road<br>San Ramon, California 94583 |
| Dress: | Attire is Business Casual |

## Contributors (as of August 23, 2006)

DuPont, Chevron, National Oceanic & Atmospheric Administration (NOAA), Tierra Solutions, and Rohm and Haas Company are providing funds to offset some meeting costs, and where possible, provide additional funds to non-industry representatives to offset travel and lodging expenses for those who require it.

## Workshop Goals

Based on the experiences gained from the pilot projects undertaken that utilize the concept of Prospective Environmental Restoration, and the learnings from other environmental trading models, the overall goal of this Workshop is to develop consensus approaches to address specific questions regarding how the concept of Prospective Environmental Restoration will be applied to pilot projects in the near term. Ultimately, the Workshop products will contribute to the development of a framework for a Prospective Environmental Restoration program in the United States.

## Workshop Agenda

**Pre-Meeting, Tuesday, September 5:**

4:00 – 5:30 pm Steering Committee & Workgroup Chair Meeting
*Location: Chevron Park – Bishop Ranch 1, Room 1220*

**Day 1, Wednesday, September 6:**

7:00 – 8:00 am Continental Breakfast (provided by Chevron) and Registration
*Location: Chevron Park – Bishop Ranch 1, Room 1220*

8:00 – 8:15 am Workshop Introduction and Welcome (Mike Amman, Chevron; Ralph Stahl, DuPont)

8:15 – 8:30 am Overview of Technical Workgroups, Expectations

8:30 – 10:30 am Plenary Session 1: Invited Presentations (15-20 minutes per topic)

a. *Issues and challenges from a Federal Trustee perspective (Ron Gouguet, NOAA; Sherry Krest, USFWS)*
b. *Issues and challenges from a State Trustee perspective (Richard Seiler / Don Pitts, Texas; Pam Lange, New Jersey)*
c. *Issues and challenges from a business perspective (Lucinda Jackson, Chevron; Al Collins, Oxy)*
d. *Win-Win Solutions for Natural Resources and Businesses (Lynn Dwyer, National Fish & Wildlife Foundation; Joseph Hankins, The Conservation Fund)*
e. *Lessons Learned from Other Environmental Trading Models (Jessica Fox, EPRI Solutions; Jenny Guiling, World Resources Institute; Stephanie Gripne, The Nature Conservancy)*

10:30 – 10:45 am Break

10:45 – 12:00 pm Technical Workgroup Session Meeting 1

12:00 – 1:00 pm Lunch (provided by Chevron)

12:30 – 12:45 pm Invited Presentation:
*Prospective restoration from the perspective of a real estate manager (Brian Kelly, Chevron)*

1:00 – 4:00 pm Technical Workgroup Session Meeting 2

4:00 – 5:00 pm Plenary Session 2: Technical Workgroup Progress Reports

5:00 pm Close

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| 6:30 – 8:30 pm | Reception / Cash Bar<br>*Location: Marriott San Ramon, 2600 Bishop Drive – Salon B* |
| | Dinner on your own |

**Day 2, Thursday, September 7:**

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| 7:00 – 8:00 am | Continental Breakfast (provided by Chevron)<br>*Location: Chevron Park – Bishop Ranch 1, Room 1220* |
| 8:00 – 12:00pm | Technical Workgroup Session Meeting 3 (Final Session) |
| 12:00 – 1:00 pm | Lunch (provided by Chevron) |
| 1:00 – 2:00 pm | Plenary Session 3: Technical Workgroup Final Status Reports |
| 2:00 – 3:00 pm | Plenary Session 4: Open Discussion on Workgroup Findings (moderated) |
| 3:00 – 4:00 pm | Plenary Session 5: Workshop Summary and Closing |
| 4:00 pm | Adjourn |
| 4:00 – 5:00 pm | Steering Committee & Workgroup Chair Meeting |

## Workshop Objectives

The specific objectives of the Workshop include:

- Identify and document approaches, consensus points, and areas in need of resolution for Prospective Environmental Restoration.
- Evaluate and communicate methods and approaches from other environmental trading models that may be applicable to Prospective Environmental Restoration.
- Develop and document answers to Workshop Questions and identify specific data gaps, incorporating lessons learned from prospective restoration projects currently underway.
- Seek to achieve consensus on how the concept of Prospective Environmental Restoration will be applied to prospective restoration projects in the near term. In particular, discuss appropriate geographic boundaries, applicability across habitat types, and methods for calculating credits for prospective restoration projects.
- Summarize the proceedings of the Workshop into a 20-30 page report, and provide to participants on CDs. If there is sufficient interest and commitment, the proceedings may result in a manuscript suitable for publication in journals such as *Restoration Ecology* (Society of Ecological Restoration) or *Integrated Environmental Assessment and Management* (Society of Environmental Toxicology and Chemistry). The decision regarding publication will be made by the Steering Committee after consultation with the participants.

## Issues to be Addressed by this Workshop

The Steering Committee has identified key technical issues to be deliberated in three Technical Workgroups by participants at the workshop.

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| Workgroup #1: | Environmental Banking and Trading Mechanisms |
| Workgroup #2: | Ecological Service Area Boundaries and Restoration Project Selection |
| Workgroup #3: | Economics of Restoration: Valuation of Ecological Service Flows, Calculation of Credits and Market Analysis |

The Steering Committee has developed preliminary questions for each Technical Workgroup to guide workshop participants. Each Workgroup will be asked to identify specific case studies that illustrate successes, key learnings, and areas in need of improvement related to the topic.

## Workgroup #1: Environmental Banking and Trading Mechanisms

***Facilitators: Jessica Fox, EPRI Solutions; Jenny Guiling, World Resources Institute***

**Questions to be Addressed:**

2) What are the lessons learned from the existing environmental trading / banking models (e.g., conservation banking, wetlands mitigation banking, water quality trading, emissions trading) and the prospective restoration planning activities undertaken to date?

3) What are the existing mechanisms that companies can use to hold, apply, sell or trade environmental credits (e.g., existing mitigation bank in California)?

4) What are the different programs under which prospective restoration planning credits may be applied (e.g., NRDA, CWA Section 404, various permitting programs), and what are the impediments associated with each program? Is it feasible for more than one program to utilize credits from the same restoration "bank"?

5) What are the benefits and drawbacks of conducting restoration activities prospectively? Possible topics for discussion include benefits of doing restoration as soon as possible (e.g., before land is sold) and risks of not having predetermined liabilities to offset.

6) What are the existing and/or proposed mechanisms for a formal prospective restoration agreement between agencies and industry parties as well as between industry parties? How can it be ensured that the credits are durable? Legal perspective would be helpful.

7) What mechanisms can be used to ensure long-term management of ecological service flows?

8) Are there any constraints or barriers to prospective restoration planning that have not been identified in this workshop outline?

9) Describe three to five case studies related to this Workgroup topic that vary by the type of environmental trading / banking model and geographic location.

**Workgroup #2: Ecological Service Area Boundaries and Restoration Project Selection**

***Facilitators: Ron Gouguet, NOAA; Lynn Dwyer, National Fish & Wildlife Foundation***

**Questions to be Addressed:**

1) On what scale should prospective restoration planning occur (e.g., regional / watershed scale)? What are appropriate service area boundaries?

2) To what extent must the impact to which credits may be applied be known at the time of restoration, and factored into project selection?

3) What are existing mechanisms that land trust and other organizations have for ecosystem planning for acquisition and restoration projects? Are there existing inventories of potential restoration projects? How can these be applied to prospective restoration planning and accessed by interested parties?

4) How should restoration projects be identified, prioritized and selected? What criteria should be used? What entities should be involved in project selection?

5) How should public acceptance of the project be factored into the selection decision?

6) How should interstate / federal consistency be addressed (e.g., federal consistency under Coastal Zone Management)?

7) What are appropriate performance measures for restoration projects?

8) Describe three to five case studies related to this Workgroup topic that vary by scale, habitat type, and geography.

**Workgroup #3: Economics of Restoration: Valuation of Ecological Service Flows, Calculation of Credits and Market Analysis**

***Facilitators: Ted Tomasi, Entrix; Steven Thur, NOAA; Matt Zafonte, California Department of Fish and Game***

**Questions to be Addressed:**

1) What methods should be used to calculate credits for prospective restoration projects (e.g., HEA vs. alternative methods)? Is it appropriate to apply NRDA tools?

2) How should the initial credits that are assigned be evaluated when the credits are applied ("withdrawn") sometime in the future?

3) How should uncertainty with respect to changes in ecological services over time be addressed? What are methods to minimize the uncertainty related to the value of ecological credits upon "withdrawal"?

4) How does calculation of credits vary by habitat type or type of restoration undertaken?

5) If credits are obtained and utilized under different programs (e.g., NRDA, CWA Section 404), how would the credits be interchanged?

6) What is the interchangeability of credits calculated using different methods (e.g., economic-basis vs. ecological-basis)?

7) To what extent should the "landscape" value of a restoration project be taken into consideration?

8) How does an entity at the "bank" or "seller" level determine whether there is a market ("buyer") for the credits?

9) Describe three to five case studies related to this Workgroup topic that vary by scale, habitat type, and geography.

## Steering Committee

The Steering Committee has worked together to develop the outline and structure for the Workshop, to focus the Workshop on key technical issues and to promote a successful outcome. Current members of the Steering Committee are: Michael Ammann, Chevron; Amanda DeSantis, DuPont; Ron Gouguet, NOAA; Jenny Liu, DuPont; and Ralph Stahl, DuPont.

## Participants

A maximum of 70 participants will include federal and state natural resource trustees, industry representatives, conservation groups, Native American tribal representatives, and selected academic researchers.